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ABSTRACT

A study examined the views of private sector employers in Oregon on vocational education. During the study, researchers mailed questionnaires to a stratified random sample of 1,500 employers throughout Oregon. In addition, they surveyed another 140 employers who were identified as hiring the largest numbers of vocational education completers in the state. Finally, interviewers spoke with representatives of 10 Oregon firms that employ over 55,000 people. Virtually all the employers interviewed indicated that many entry-level employees are deficient in basic skills. Other frequently mentioned problems were poor work attitudes and a general lack of understanding about the world of business. While many of the employers interviewed indicated that their firms provide at least some type of on-the-job training, most agreed that additional training is needed in areas such as computer literacy, the need for retraining and lifelong learning, basic economics, and time management. When asked who should be responsible for performing these additional training functions, most of the respondents said that they should be the responsibility of educational institutions. Based on these findings, recommendations were made calling for increased cooperation between the educational and business sectors in areas such as job training and placement and for new legislation concerning tax credits to encourage businesses to donate equipment to vocational schools. (MN)

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Private Sector Views of Vocational Education: A Statewide Employer Survey

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Paper presented at the annual meeting of the American Vocational Association in Los Angeles.

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PRIVATE SECTOR VIEWS OF VOCATIONAL EDUCATION: A STATEWIDE EMPLOYER SURVEY

As the political and economic climate changes, new information needs arise so that educators, legislators, employers and the community can be better informed in planning vocational education programs or modifying existing ones. In Oregon the Department of Education identified a need to determine: employer perceptions of the quality of existing vocational education programs and of the adequacy of preparation of students being trained; the types of current and desired employer participation in vocational education, and employer perceptions of deficiencies noted in a substantial number of new employees in their businesses. This paper describes the procedures used and findings resulting from a study designed to address these issues. Both the procedures and findings should be useful to vocational educators in the states faced with similar concerns.

Several limitations in previous studies of employer views on vocational education have been noted and an attempt made to correct these in the present study. Previous studies have generally focused on only one or two delivery strategies for programs and thus did not allow a comparison of employer perceptions across various delivery strategies. In the present study, our advisory committee felt it important that we examine vocational training provided through high schools, community colleges, private vocational schools, and employment and training programs.

Another limitation in some previous studies has been to survey only those employers where vocational education students gave permission. Thus a positive bias is built into such responses since a student who felt he or she had not performed well would be unlikely to request an employer rating. This study avoided this bias by surveying a stratified random sample of employers throughout the state.

A third limitation of employer surveys that are intended to reach a cross-section of employers throughout a state is the problem of identifying a valid and current data base of employers that are organized by size of company and Standard Industrial Classification (SIC). The most complete listing of employers is the official, but confidential, record maintained by the state employment division. This record is based on all employers from whom unemployment insurance is collected. This includes government, nonprofit agencies and the self employed. In order to use such a listing without violating confidentiality requirements, we contracted with the Oregon Employment Division to draw the stratified random sample (described in the methodology section), mail out the surveys and follow up mailings, collect the responses and prepare a data tape that did not reveal the name of any employers surveyed.

Study Limitations

Although we were able to avoid some problems encountered in earlier employer surveys, we encountered our own set of limitations. The surveys were mailed to a stratified random sample of employers but no personal names were attached so we were not sure which persons within a company completed them. Based on telephone calls of those having questions about the survey most respondents in the larger firms were personnel officers. A number of the employers had difficulty in completing the survey either because the were unfamiliar with vocational education or because they were unaware of which of their employees had received vocational training and which had not. However, these observations themselves were important because they indicated a general unawareness of vocational education programs and those receiving such training.

Despite a postcard follow-up and a second mailing of the survey to nonrespondents, the overall response rate to the survey was only 48 percent. Limited time and resources prevented the Employment Service Division from being able to conduct telephone calls to a sample of nonrespondents to determine their reasons for nonresponse. Based on telephone calls received from employers, however, the most frequently stated reasons for not responding were that their business hired no vocationally trained people or because they were not familiar with vocational education.

The limitations of mail surveys were balanced in this study with personal on-site interviews by staff from the Northwest Regional Educational Laboratory (NWREL) with personnel officials and on-line supervisors in the largest companies in Oregon. The findings from these interviews are reported later in this paper.

Research Methods

This study was conducted by the Northwest Regional Educational Laboratory (NWREL) under a contract with the Oregon Department of Education. The design called for a mailed survey to be used as well as personal interviews with the ten largest companies in Oregon. The surveys were mailed to a stratified random sample of 1,500 employers throughout the state proportionately stratefied by Standard Industrial Classification (SIC), size of company and 16 geographic regions of the state (corresponding to community college boundaries). The Oregon Employment Service was contracted to use their current records for drawing the sample proportionately to the total population of 67,000 employer units within the state. To preserve confidentiality of the records, the Employment Service also mailed and collected completed response.

In addition to the 1,500 randomly sampled employer units, 140 additional employers were surveyed. These latter companies were nominated by the community colleges throughout the state as employing the largest number of vocational education completers. Nominations were received from each

of the community colleges. This list of 140 employers was checked against the randomly sampled list to assure no duplication of mailings.

Because ten companies in Oregon employ over 55,000 people, it was felt important to have personal interviews with both the personnel officials and supervisors in each company. All ten companies were contacted by letter and telephone.

The draft survey and interview guide were developed by NWREL and reviewed by the Oregon Department of Education and a project advisory committee. The advisory committee consisted of representatives from business and industry, community colleges, high school vocational programs, employment and training programs, the state legislature, Oregon Department of Education, Oregon Occupational Information Coordinating Council, the State Advisory Council for Vocational Education, the Economic Development Council, and the State Employment and Training Coordinating Council. Because the results of this study have implications for many groups in Oregon, it was important to have broad representation on this advisory committee. The committee will meet a second time to review draft findings and help us explore recommendations. The revised mail survey and interview guide were pilot-tested and final corrections were then made.

Findings

The findings from this study are discussed in two parts--first the interviews with the largest employers and then the mail survey findings.

Employer Interview Findings

The NWREL staff completed interviews with eight of the ten largest companies in Oregon. The identification of those companies was based on records maintained by the Oregon Employment Division. The Division sent letters to each company explaining the purpose of the study and requesting permission to release company names to NWREL in order to schedule interviews. They included financial institutions, utility companies, the wood products industry and electronics firms. Of the remaining two companies, one did not have a centralized approach for hiring employees and the other preferred not to be included in the survey. Data in this report are based on interviews with eight executives or personnel officers and nine supervisors (one company had two supervisors they felt should be included in the study).

All interviews were conducted on site at company offices. Each lasted approximately one hour. The questions were designed to solicit information about the number of vocational education program completers the company had hired in the past three years, the general levels of satisfaction with the vocational education program completers, and some overall perceptions as to how vocational education and business might work together in the future.

Personnel officers, or company executives were asked to respond to the questions on behalf of the entire organization or at least for that part

of the company for which they have responsibility. Supervisors were asked to respond to the questions based only on the unit or division for which they have responsibility.

A number of factors which affected the results of this survey are important to note. First, and most important, the poor condition of Oregon's economy for the past three years has severely limited hiring by each of the large employers. As a result, fewer entry level workers have been hired. Additionally, when job openings occur, former laid off employees are generally given preference for those positions.

Secondly, most of the employers interviewed do not maintain records on whether or not their employees participated in a vocational education program. The only exception was in the high technology firms where many technicians are hired directly from vocational education programs at community colleges or four-year institutions. Because employers often don't know whether or not employees have had vocational education training, the numbers provided in response to NWREL's questioning are given as estimates.

Finally, there are differences in the expectations of employers for entry level employees. For example, employers in the retail sales business usually hire individuals as clerks, etc., on a part-time basis. Many of these employees are high school students who are college bound, or college students who are earning money to stay in school. These students are generally working for income, not for career development. They differ from many of the individuals who are hired by manufacturing firms where employment may be viewed as the first step on a career ladder. A number of manufacturing firms attempt to promote from within employee ranks and consequently, their views on employee performance differ in some respects from retail or service based firms.

The results of these interviews are described in the following pages. The responses of the executives and personnel officers have been separated from those of the supervisors for analysis, although in most areas the nature of responses were similar.

For the purposes of these interviews, employers were asked to distinguish among five different levels of vocational training:

a. High School
b. Community College
c. Private Vocational Schools
d. Employment and Training Programs
e. Apprenticeship Programs

Each was asked to estimate the number of former vocational education students their company had hired from the five levels. Unfortunately, the respondents were unable to distinguish among individuals hired directly from a vocational program and individuals with vocational training and interim experience. Many were unable to provide even estimates of the number of individuals hired with vocational education experience. Table 1 indicates the findings from those employers responding to this question.

TABLE 1

EMPLOYMENT OF FORMER VOCATIONAL EDUCATION STUDENTS
BY LEVEL OF EDUCATION

Level	Average Number Employed	Range	Number of Respondents
Executives/Personnel Officers			
High School	93	45-135	3
Community College	168	135-200	2
Private Vocational School	36	0-70	3
Employment and Training Programs	31	0-75	3
Apprenticeship Programs	9	0-15	3
Supervisors			
High School	18	0-35	5
Community College	21	0-60	5
Private Vocational Schools	4	0-20	5
Employment and Training Programs	1	0-3	5
Apprenticeship	0	0	5

Respondents were also asked to rate the job performance of former vocational education program students from each of the levels using a rating scale of very good, good, fair, poor and very poor. Table 2 summarizes the responses to this question by converting them to a five point scale with "very good" valued at five points, "very poor" valued at one point.

TABLE 2

EMPLOYER SATISFACTION WITH NEW VOCATIONALLY TRAINED EMPLOYEES

Level	Mean Rating	Number of Responses
Personnel Officers		
High School	3.3	6
Community College	4.5	6
Private Vocational Schools	3.0	6
Employment and Training	3.5	4
Apprenticeship	4.5	4
Supervisors		
High School	3.5	4
Community College	5.0	4
Private Vocational Schools	4.0	3
Employment and Training	4.0	2
Apprenticeship	No Responses	

Table 2 indicates employer satisfaction occurs more frequently with employees who received vocational training in community colleges and through apprenticeship programs.

The third question asked of each person interviewed was in what vocational areas new employees had generally received their training. The responses are summarized in Table 3.

TABLE 3

AREAS OF VOCATIONAL TRAINING FOR NEW EMPLOYEES

Area of Training	Responses: Personnel Officers	Responses: Supervisors
Agriculture and Forest Products	1	0
Business and Office	7	2
Distributive Education	2	0
Health Occupations	1	0
Home Economics Occupations	0	0
Technical	7	2
Trade and Industry	4	0
Others		
PCC Banking Program	1	0

Table 3 indicates that vocationally trained employees hired by Oregon's largest companies come from training programs in two major areas: (1) technical and (2) business and office. This finding is consistent with vocational education enrollment patterns.

The fourth question asked employers to indicate if there have been any common problems or inadequacies in the skills, attitudes or performance of new employees. The responses to these questions were almost universally similar, and can be categorized into three general areas: (1) poor performance in basic skills, particularly oral and written communications; (2) poor work attitudes; and (3) a general lack of understanding about the "world of business." Following is a discussion of each.

Basic Skills. Virtually all employers interviewed indicated that many entry level employees were deficient in basic skills such as reading, writing and computing. In addition, many employers expressed concern over individuals being able to transfer skills to the work environment. The ability to "think" and solve problems was frequently cited as lacking among recent high school and community college graduates. Employers were less critical of the community college program completers than of individuals with only high school training.

Most of the respondents indicated that when employees had received training in specific job related skills, either in high school or community college, they were usually very proficient in those skill areas. However, the employees also had trouble generalizing those skills to other tasks. Employers were critical of the ability of new employees to read written directions, communicate effectively in writing (citing both grammatical and spelling difficulties), and handle basic computational problems. Many of the respondents also expressed concern over the limited number of questions employees ask. They felt that many new employees preferred to "try to get by" rather than ask a supervisor or co-worker for assistance.

Only one employer did not feel basic skills to be a major problem among new employees. However, this person's organization requires prospective employees to pass a stringent application test before even being considered for a position. The test is apparently effective as this supervisor said individuals hired in her department have had adequate training in essential skill areas.

Work Attitudes. Another frequently mentioned problem was the poor work attitude exhibited by a large number of persons hired for entry level positions. Comments such as "They behave as if they have a right to a job" and "New employees aren't willing to start at the bottom and work their way up," are typical of the responses employers gave to this question. Additionally, employers expressed concern over lax work habits. They indicated many new employees are frequently late to work and lack motivation.

There was general agreement that schools need to do a better job in teaching students about the importance of good work habits. Almost all respondents felt this to be an area where the schools are presently failing.

Understanding the Business Environment. The employers also suggested new employees do not appear to understand how business operates. They all expressed frustration with this lack of knowledge. One said "many of these people think that large businesses have a profit margin of 30 to 40 percent." Many believed employees were ignorant of the business environment because former teachers were. The employers indicated that teachers need more information and possibly more experience in the world of private enterprise to understand how a business operates. All felt that students should be taught more about the world of business before graduation.

A related concern expressed by three of the personnel officers was a general inability on the part of new employees to cope with "real life" situations such as applying for a driver's license and managing their money intelligently.

Each respondent was asked to describe the type of training, other than orientation, their business provides to new employees with less than a four-year college degree. Responses were given in the following five categories:

a. On the job training (OJT)
b. Classroom training
c. Off site training
d. Apprenticeship programs
e. Others

On the Job Training. Descriptions of OJT programs varied considerably. There appeared to be a distinction between formal OJT programs and the length of time it takes a new employee to become fully productive in the new position. All companies have formal OJT programs that last from two or three days to more than a month. In addition, employers indicated that the end of formal OJT programs did not mean training was completed. For example, one supervisor who is responsible for the management of a large multistory building in Portland said he expects it to take five to six years for new employees to fully understand all job functions. Similarly, in one of the lumber mills, a personnel officer indicated that it takes two to five years for many mill workers to become fully productive.

This distinction between formal OJT programs and general supervision of new employees is important. Although not part of a formal OJT program, this supervision is clearly considered part of the training program for new employees.

In a number of firms, particularly those engaged in high technology manufacturing, OJT is often a continual process due to rapid changes in the manufacturing process. In these companies, it's necessary to retrain workers each time a change is made in the goods being produced. Therefore, OJT is more than a job entry program; it is continued throughout an employee's tenure with the company.

Classroom Training. Many companies provide classroom training for employees. This training is not limited to new employees; it appeared to NWREL interviewers that the classroom programs are designed to teach new

job skills to any employee wishing to learn them. While classroom training is therefore an important part of the training provided by these companies, it is not solely for the benefit of new employees.

Many of the firms also encourage employees to take classes that will help them learn other aspects of the business to increase collaboration and understanding among the various company segments. Generally, classroom programs operated by these firms are devoted to subjects related to the products and services provided by the company or to subjects that help individuals within the company improve their particular job skills.

Finally, all companies interviewed indicated that they have a tuition reimbursement program for their employees. All pay half the tuition costs of any college course completed by an employee, up to a maximum expenditure per employee per year. In addition, two of the firms will pay the full costs, tuition, books and other expenses of any courses that are directly job related. Each employer indicated these tuition reimbursement programs are valuable; additionally, courses that are not directly job related are valuable in terms of providing the company with better educated employees.

Off Site Training. The companies interviewed do use off site training programs as a vehicle for providing skills for their employees, although not as frequently as they use on site training programs or tuition programs. Off site training programs are generally vendor-provided programs to help employees learn about new equipment purchased by the firm. Courses are provided by industry umbrella groups such as the American Institute of Banking. Technical conferences are also used to help develop skills for employees. However, none of the companies utilize this type of training to provide skills to entry level employees.

Apprenticeship Programs. Few of the companies interviewed are involved in apprenticeship programs for employees. This appears to be largely a result of limited unionization. Most apprenticeship programs are operated in conjunction with unions. For those firms with apprenticeship programs, enrollment is limited to no more than one or two individuals at a given time. This is primarily due to the poor condition of Oregon's economy, and will undoubtedly change as financial conditions improve. Each of the apprenticeship programs discussed was very specific to the particular employer involved, and generally lasted two to four years.

Others. Other training programs mentioned by respondents were programs provided by the company to improve specific skills such as language arts training, or to provide skills particular to an industry such as the operation of a power plant. In all instances, these programs took the form of classroom training or on the job training.

When asked in what areas they felt additional training was needed, respondents suggested the following:

a. Computer literacy
b. Emphasis on the need for retraining and "lifelong learning"
c. A better understanding of how business operates

d. Basic economics
e. Basic written and oral communications skills
f. The ability to budget time effectively

When asked who should be responsible for performing these additional training functions, most of the respondents said such areas as computer literacy, the ability and/or willingness to learn new skills and basic communications skills should be the responsibility of educational institutions. Other areas such as basic economics, particularly as it relates to the operation of private enterprise, as well as better understanding of business and industry practice should be, at least in part, the responsibility of private business.

Interestingly, all respondents felt it was the schools' responsibility to provide individuals with the "basics," and that it was the employers' job to provide the specific technical skills individuals need to do their job. One person interviewed stated, "If a person comes to us well grounded in the basics, we will give that person the technical knowledge necessary to be successful."

Respondents were asked what changes, if any, should be made in the high school general and vocational curriculum in response to emerging technological advancements. Employers indicated that while teaching computer literacy is important in both a general and vocational curriculum, it should not be taught at the expense of teaching the basics.

Most respondents suggested that both general and vocational curricula should ensure that students have the ability to express themselves clearly both orally and in writing. In addition, all respondents felt that a general understanding and/or awareness of computers and their operations and capabilities were important parts of the high school curriculum. One individual said it's important not only to teach students about computers, but to show them why they should learn data processing concepts. This individual felt that a program was needed to help students understand how important computers are to the daily operation of most businesses.

In terms of vocational programs at the high school, the respondents were generally favorable to current offerings, although a number indicated it would be impossible for high schools to keep up with the rapid changes in technology. Therefore, these individuals felt that at the high school level, vocational programs should stress the importance of basic skill areas. It was suggested that the community colleges have been more successful in keeping up with technological changes, and that these institutions are probably a better place to make that effort. One respondent said that in his opinion, better tax incentives should be offered for businesses to donate equipment to schools at all levels.

When asked what ways their companies work with schools to support vocational education, a number of answers were received. These include providing speakers and/or booths at "career day" activities, speaking to individual classes when requested, participating in Junior Achievement programs, serving on community college advisory boards, helping teachers

at the high school or community college develop curriculum and instructional materials, sponsoring an explorer scout unit, donating equipment and/or money for programs, and providing summer job programs. In addition, one of the supervisors has worked with the technology training program operated by Chemeketa Community College at the Oregon State Prison, and has hired a number of program completers at his firm.

Each of the respondents felt that their company's contributions had been effective in fostering relations between educational organizations and private business. However, all wished it were possible to do more with the schools. Some said the structure of their firm made it difficult to initiate such activities, although more respondents felt school officials were reluctant to ask for or accept help from private business. Many expressed frustration with school administrators who, they claimed, tried to obstruct progress because they feel they understand better what students need than do people in business. One of the major things schools should do is ask for assistance, was a common response. All seemed open to helping as much as possible. However, it was the interviewer's opinion that most of the respondents felt it was the school's responsibility to develop communications between business and industry and the responsibility of business to respond to those requests.

When asked if there were other areas in which their company could or would support education, a variety of different responses was given. Three of the respondents indicated they felt their company already did much in this area and couldn't think of additional ways to support vocational education. A number of supervisors suggested that schools should be helped to develop programs that would train individuals with skills to meet programmatic needs. One respondent indicated that because of the nature of their hiring, they worked primarily with the four year colleges; he felt there was little else they could really do with the elementary and secondary schools.

Several respondents said their company's need for new employees was a major factor in the role they expected to play in the schools. Therefore, if the economy improves, and these companies begin to increase their hiring, they may be more willing to work with the schools to ensure a supply of individuals with the training desired.

When asked to suggest ways to improve the relationships between business and education, the most common response was that schools need to focus more on preparing students for employment. All felt that it would be important for educators and representatives of private business to develop better communications with each other. One respondent even suggested establishment of an ombudsman-type position, although no suggestion was given as to where such a person would be located or the terms of employment.

One supervisor expressed concern about the attitude of many school counselors who try to find individuals who "just need a job" rather than devoting energy to finding students whose interests meet the needs of the employer. This supervisor, as well as others, felt that the school counselors devote too much energy to college bound students and do not

provide adequate counseling to noncollege bound students. As a result, many entry level employees don't really know whether or not they will like the work to which they are assigned. One respondent suggested programs where students work in a variety of settings for a few hours a day as part of the school program. This would help develop a better understanding of what it's like to work in a particular area on a full-time basis.

Finally, respondents were asked what they think is needed to improve the performance of local high schools in response to the growing discussion on excellence in secondary education. A frequent reply was that schools should pay teachers more, although none of the respondents proposed any solutions for financing this suggestion. Other suggestions included:

a. Establish year-round schools
b. Do a better job of teaching the basics at the elementary level
c. Develop stricter graduation requirements
d. Establish stricter discipline in high schools
e. Have higher expectations for students, both in the schools and at home
f. Give teachers a better understanding of how business operates
g. Develop standards of respect for teachers; students must maintain those standards
h. Increase the technical offerings for noncollege bound students

Employer Questionnaire Findings

Oregon Business Survey forms were mailed to 1,640 employers throughout the state. Approximately 780 (48 percent) were returned as a result of a postcard follow-up and a second mailing of the survey form. Of the employers responding, only a third considered themselves familiar with vocational programs located in their business community. Twenty-three percent of the employers were from companies employing less than 10 people, 30 percent employed 10 to 49 people, 25 percent had 50 to 249 people and 20 percent had 250 or more employees. The largest category of businesses was services (23 percent) followed by wholesale and retail trade (16 percent); government (13 percent); manufacturing (11 percent); communications, transportation and public utilities (7 percent); agriculture, forestry and fisheries (6 percent); finance, insurance and real estate (5 percent); and mining and construction (4 percent).

Employers were asked to indicate which of 12 problems reported in other studies were serious problems their company had experienced with a substantial number of new employees. Over a quarter of the employers identified the following problems: lack of acceptable work values, habits and attitudes (54 percent), lack of job skills and knowledge (30 percent), inadequate writing skills (28 percent), excessive tardiness and absenteeism (26 percent) and lack of work experience (26 percent). Inadequate math skills (19 percent) and reading skills (15 percent) were reported less frequently.

Employers identified the minimum requirements they had for entry-level positions. Previous work experience (40 percent), high school diploma (35 percent), demonstration of competency (31 percent) and GED (29 percent) and vocational or technical training (23 percent) were mentioned most often. Of employers responding to the question, 96 percent provide employees with on-the-job training, 60 percent with classroom training, 54 percent with off-site training and 32 percent with some form of apprenticeship.

Less than half of the businesses surveyed reported hiring any vocational program completers in the past three years. Forty-one percent of the employers have hired people with vocational training from community colleges, 39 percent from federally funded employment and training programs, 35 percent from high school and 17 percent from private vocational schools.

Employers rated the technical skills, work attitude, work quality and overall satisfaction with vocational completers from each of these four sources. Those from community colleges were rated highest (2.4 on a five point scale with 1 = very good and 5 = very poor), followed by high school (2.9), private vocational school (3.0) and employment and training programs (3.0). Across the board, technical skills were rated higher than work attitude or work quality.

More specifically employers were asked to rate 13 skill areas or attributes of program completers trained by the four delivery strategies. In considering these ratings it is useful to keep in mind that generally less than 20 percent of the employers felt able to make these judgments.

One area of the survey that was difficult for most employers to complete was the area in which vocationally trained employees had received their training. The most frequently listed area was health occupations which probably reflects the fact that employers in this field are more aware of what prior training their new employees have had.

The survey included nine statements about vocational education for individuals under 20 years of age. Employers were asked to rate each statement as high, medium or low in importance. Forty percent or more of the employers identified four recommendations as highly important: assure that individuals who do not go on to college have marketable skills (70 percent); improve the courses and programs currently offered (53 percent); provide cooperative opportunities to learn at the business site (48 percent) and be more supportive of economic development (44 percent). At the other end, only 18 percent of the employers felt it highly important to add courses so that more students can enroll. For vocational students, over 20 years of age there were seven recommendations considered highly important: assure that individuals who do not go on to college have marketable skills (65 percent), assure that older workers have access to training for entry or reentry into the job market (57 percent), improve the courses and programs currently offered (52 percent), provide cooperative opportunities to learn at the business site (49 percent), be more supportive of economic development (45 percent), upgrade present workers with thorough retraining (43 percent) and add courses to provide training in more occupations (41 percent).

A final area of this survey explored ways in which businesses are currently working with schools to support vocational education and help they would be willing to provide. Table 4 identifies 17 types of support that have been identified in other studies or were suggested by our steering committee. A third of the employers stated their companies are currently providing vocational students with work experience and at least 20 percent were serving on advisory committees and recommending what to teach in vocational courses. At least a third of the employers indicated willingness to serve on advisory committees, recommend what to teach in vocational courses, and evaluate vocational graduates' job performance. The number of employers willing to work with the schools was greater than the number currently doing so in 15 out of 17 ways. The exceptions are willingness to provide equipment, materials and facilities. In a discussion with employers at the Associated Oregon Industries annual conference this fall, members explained this reluctance to provide equipment, materials and facilities as due largely to the lack of tax incentive for doing so under existing Oregon legislation. They recommended new legislation that would provide such a tax incentive. Areas where there was at least twice the number of employers willing to support education than were currently doing so were: recommending equipment and materials to be used, reporting employment status and job performance of vocational completers, helping to select new vocational teachers, and releasing employees to teach vocational courses.

Table 4

Areas where businesses are working with schools to support vocational education

	Now	Willing to
Suggesting new vocational courses	19	34
Recommending what to teach in vocational courses	23	40
Recommending equipment and materials to be used	13	27
Providing equipment and materials	13	12
Designing facilities	3	6
Providing facilities	14	13
Providing vocational students with work experience	33	39
Reporting employment status of vocational graduates	11	27
Evaluating vocational graduates' job performance	15	33
Serving on advisory committees	25	41
Providing teachers with job skill improvement	8	17
Helping to select new vocational teachers	5	13
Releasing employees to teach vocational courses	11	22
Providing training programs for the education community	10	15
Providing training for apprentices	15	19
Providing training for journeypersons	6	9
Requesting references from school staff before hiring a vocational trainee	19	28

Areas for improvement in the relationships between the private sector and education and training agencies were identified. The need was expressed by 15 percent of the employers for better communication between agencies and for training agencies to respond in a more timely fashion to the changing needs of business and industry.

When asked in an open ended question for suggestions to improve vocational education over 350 ideas were recorded and analyzed. Employers most frequent responses are shown in Table 5. Perhaps as important as their individual responses is the fact that so many employers took time to write down their ideas. Major themes are for vocational educators to improve communications with business people and listen to their training needs, increase public awareness of vocational programs, and improve basic skills and work attitudes of students. Those listing particular basic skills mentioned math and oral communications at least five times while reading, writing and computer literacy were listed only several times.

TABLE 5

MOST FREQUENTLY STATED EMPLOYER SUGGESTONS FOR IMPROVING VOCATIONAL EDUCATION

Suggestions	Number of Employers
Improve communications with business people	31
Increase public awareness of vocational programs	29
Improve basic skills of students	26
Improve students' work attitudes	22
Find out what training needs businesses have	17
Add coopertive work/study opportunities at business sites	16
Have better screening of students into vocational education and job applicants	9
Better teacher preparation	8
Increased/more stable funding	7
Improve math skills	7
Better job placement coordination	6
Encourage active advisory committees	6
More business world experiences for teachers	6
Better assessment of students' career choices	6
Avoid training for obsolete jobs	5
Improve oral communications	5
Involve business people in developing curriculum	5
Train for specific openings in the local job market	5

Here are a few direct quotes to give a sampling of the employers diverse opinions:

"Traditional vocational training in wood shop, automotive, although of interest to students are of little job value. A student aware of safety, work rules, loyalty, reliability, timelines and appearance would gain more."

"Find out what business needs in an employee and what the real expectations are for a job after training. Then go for it!"

"The educational community and business need to share equipment and facilities for vocational training. Business has the capital to invest in computers and equipment; schools have the students. A natural merger for the two."

"Instead of making vocational education available to all, make it difficult (screen out) to get in and enforce a high standard to complete the program."

"Use of an employee survey (much like this) to determine education needs of existing employees."

"Provide better publicity on the intent, availability and benefits--benefits both for the trainee and the business man."

"One reason we've refused to be involved is the high volume of paper work."

"Provide assistance to business in training persons they find qualified. So often persons in training programs really don't want to be there. Recognize fact that some people are just plain 'unemployable.'"

"I honestly did not know we had vocational education in Oregon!"

"Work more closely with the instructors of the vocational program. I have never been approached about working with a particular program, and I would be willing to do so."

Conclusions and Recommendations

The willingness of vocational and training program staff to work with business people may be one of the best kept secrets in Oregon and the rest of the United States! Tremendous attention has been focused over the past several years on the need for cooperation between vocational education and the private sector. Excellent examples of close collaboration exist. Nevertheless, the results of this study highlight the need for better communications and suggest some concrete areas where the business community is willing to pitch in. Recommendations from this study are grouped around four groups: the business community, vocational and training program administrators, legislators, and researchers.

The Business Community

Representatives of Oregon's largest corporations felt that basic skills, computer literacy and willingness to learn new skills should be the responsibility of educational institutions. Other areas such as basic economics, particularly as it relates to the operation of private enterprise and understanding of business practices should be a shared responsibility of private business. Therefore, business people might review those aspects of the curriculum to see if they could suggest improvements. They might also provide experienced staff to teach units on these topics.

Some employers expressed the belief that vocational education could be improved if vocational teachers had more experience in the business world. Over the past several years, there has been a growing interest expressed by some vocational instructors to work in private industry especially during the summer months. Businesses willing to consider such placements should contact schools early to explore these possibilities.

Better job placement coordination of vocational and training program completers was mentioned by some companies. While the schools and training programs need to take a lead in this activity, businesses could assist by contacting vocational programs to inform them of their specific training needs with as much lead time as possible.

Vocational and Training Program Administrators

As one employer said, "I honestly did not know we had vocational education in Oregon!" This employer is certainly not alone. Two-thirds of the employers surveyed said they were not familiar with vocational programs. Vocational administrators and staff have a continuing obligation to provide better publicity on the purposes and description of their vocational programs and to explain the benefits to both the trainee and to businesses.

Four areas were identified in this survey where at least twice the number of employers were willing to support education than were currently doing so. These areas were: recommending equipment and materials to be used, reporting employment status and job performance of vocational completers, helping to select new vocational teachers, and releasing employees to teach vocational courses. These suggest fruitful areas for new cooperation between business and education.

Vocational educators and staff in employment and training programs have a difficult ethical decision to make in selecting people into training programs. On the one hand, employers would like to see only motivated students be admitted into training programs. On the other hand, high schools are asked to provide job entry skills to <u>all</u> noncollege bound students. A frank discussion of this dilema between vocational trainers and employers may lead to both groups being willing to take some prudent risks with hard to place youth as well as serving as an employment screen for highly qualified candidates.

Legislators

Various business people have expressed the feeling that new legislation regarding state tax credits is needed to encourage the private sector to donate equipment to vocational training programs. Examples have been given where a large computer firm donated a number of new computers to schools in California but did not do so in Oregon because the tax credit incentives in California were much more attractive.

Some employers in this study expressed the position that more funds are needed for vocational training and that funding should be made more stable from year to year. Since a majority of employers feel that vocational education should assure that individuals who do not go on to college should have marketable skills, it becomes important that adequate funds are provided to accomplish this objective. To maintain highly qualified vocational instructors it may be necessary to pay those in highly competitive fields a salary higher than that of a regular classroom teacher.

Researchers

The combination of personal interviews with representatives of the ten largest companies in Oregon and survey questionnaires mailed to a large sample of employers throughout the state has proven to be a cost-effective strategy. It also allowed us to combine the quantitative data from the mailed surveys with the more open ended and insightful opinions expressed in the hour-long interviews. The use of some common questions for both groups has allowed us to validate the findings. Thus, we would recommend this combined strategy for future use.

The use of a statewide sample of employers rather than restricting the sample to those who are familiar with vocational education allowed us to gather information on some issues otherwise not attainable. For example, it indicated that two-thirds of the responses were not familiar with vocational education. A separate analysis of the findings comparing responses of those indicating familiarity with vocational education and those not familiar will be run to give a different assessment of certain dimensions of vocational education. The limitation to using this statewide stratefied random sample, however, has been the lower response rate than may be found when dealing only with employers who are working with vocational education.